

ABSTRACT

The present invention provides a rotary table system capable of satisfactorily meeting all the demands for achieving high axial and radial run-out accuracy, high resolution, and thin and medium- or large-sized system.

The rotary table system includes a guide apparatus and a rotary table mounted on the guide apparatus. The guide apparatus includes a ring-shaped integrated rail 11 having no discontinuity in the travel direction thereof, and a plurality of guide blocks 12 that are assembled to the rail 11 from the direction of their surfaces opposing the rail 11. The surface of the rail 11 opposite to the surface thereof opposing the guide blocks 12 and the underside of the rotary table 14 are joined together. The rail 11 has an L-shaped cross-sectional configuration formed from a vertical portion and a horizontal portion extending from the upper end of the vertical portion in the radial direction of the rotary table. A tape scale that is to be detected by a detecting mechanism 16 is provided on the outer peripheral surface of the rail 11.